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**JNL** = Journal or Magazine **CNF** = Conference **STD** = Standard**1 Topology optimization design of flextensional actuators**

*Silva, E.C.N.; Nishiwaki, S.; Kikuchi, N.;*  
Ultrasonics, Ferroelectrics and Frequency Control, IEEE Transactions on , Volu 47 , Issue: 3 , May 2000  
Pages:657 - 671

[\[Abstract\]](#) [\[PDF Full-Text \(700 KB\)\]](#) **IEEE JNL****2 A blind source separation cascading separation and linearization for order nonlinear mixtures**

*Nishiwaki, T.; Nakayama, K.; Hirano, A.;*  
Acoustics, Speech, and Signal Processing, 2004. Proceedings. (ICASSP '04). IE International Conference on , Volume: 5 , 17-21 May 2004  
Pages:V - 569-72 vol.5

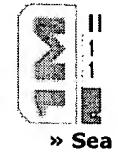
[\[Abstract\]](#) [\[PDF Full-Text \(261 KB\)\]](#) **IEEE CNF****3 A PT-IGBT with a p-/n+ buffer layer**

*Ishiko, M.; Kawaji, S.; Nishiwaki, K.; Ohnishi, T.;*  
Power Semiconductor Devices and ICs, 2003. Proceedings. ISPSD '03. 2003 IE 15th International Symposium on , 14-17 April 2003  
Pages:341 - 344

[\[Abstract\]](#) [\[PDF Full-Text \(293 KB\)\]](#) **IEEE CNF****4 A cascade form blind source separation connecting source separation and linearization for nonlinear mixtures**

*Nakayama, K.; Hirano, A.; Nishiwaki, T.;*  
Neural Networks, 2003. Proceedings of the International Joint Conference on , Volume: 3 , 20-24 July 2003  
Pages:1856 - 1861 vol.3

[\[Abstract\]](#) [\[PDF Full-Text \(383 KB\)\]](#) **IEEE CNF**



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**Results Key:**

**JNL** = Journal or Magazine **CNF** = Conference **STD** = Standard

**1 Fracture testing of bulk silicon microcantilever beams subjected to a side load**

*Wilson, C.J.; Beck, P.A.;*  
Microelectromechanical Systems, Journal of, Volume: 5, Issue: 3, Sept. 199  
Pages:142 - 150

[\[Abstract\]](#) [\[PDF Full-Text \(1392 KB\)\]](#) **IEEE JNL**

**2 Linear quadratic distributed self tuning control of vibration in one dimensional cantilever beams**

*Gopinathan, M.; Pajunen, G.A.; Neelakanta, P.S.; Arockiasamy, M.;*  
Southcon/95. Conference Record, 7-9 March 1995  
Pages:117 - 122

[\[Abstract\]](#) [\[PDF Full-Text \(352 KB\)\]](#) **IEEE CNF**

**3 Characterization of selective polysilicon deposition for MEMS resonator tuning**

*Joachim, D.; Liwei Lin;*  
Microelectromechanical Systems, Journal of, Volume: 12, Issue: 2, April 200  
Pages:193 - 200

[\[Abstract\]](#) [\[PDF Full-Text \(1197 KB\)\]](#) **IEEE JNL**

**4 Surface/bulk micromachined single-crystalline-silicon micro-gyroscopes**

*Sangwoo Lee; Sangjun Park; Jongpal Kim; Sangchul Lee; Dong-Il Cho;*  
Microelectromechanical Systems, Journal of, Volume: 9, Issue: 4, Dec. 2000  
Pages:557 - 567

[\[Abstract\]](#) [\[PDF Full-Text \(676 KB\)\]](#) **IEEE JNL**

**5 Characterization of AlGaAs microstructure fabricated by AlGaAs/GaA micromachining**

*Uenishi, Y.; Tanaka, H.; Ukita, H.;*  
Electron Devices, IEEE Transactions on , Volume: 41 , Issue: 10 , Oct. 1994  
Pages:1778 - 1783

[\[Abstract\]](#) [\[PDF Full-Text \(580 KB\)\]](#) [IEEE JNL](#)

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**6 Air-coupled ultrasound and rapid elastic property characterization using focused acoustic beams**

*Chimenti, D.E.; Holland, S.D.;*  
Ultrasonics, 2003 IEEE Symposium on , Volume: 1 , 5-8 Oct. 2003  
Pages:266 - 275 Vol.1

[\[Abstract\]](#) [\[PDF Full-Text \(637 KB\)\]](#) [IEEE CNF](#)

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**7 Theoretical modeling of boundary conditions in microfabricated beam**

*Mullen, R.L.; Mehregany, M.; Omar, M.P.; Ko, W.H.;*  
Micro Electro Mechanical Systems, 1991, MEMS '91, Proceedings. 'An Investigation of Micro Structures, Sensors, Actuators, Machines and Robots'. IEEE , 30 Jan.-Feb. 1991  
Pages:154 - 159

[\[Abstract\]](#) [\[PDF Full-Text \(356 KB\)\]](#) [IEEE CNF](#)

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**8 Inverse problems for distributed parameter systems**

*Banks, H.T.;*  
Decision and Control, 1990., Proceedings of the 29th IEEE Conference on , 5-7 Dec. 1990  
Pages:13 - 16 vol.1

[\[Abstract\]](#) [\[PDF Full-Text \(332 KB\)\]](#) [IEEE CNF](#)

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**9 Adaptive vibration isolation for axially moving beams**

*Li, Y.; Rahn, C.D.;*  
Mechatronics, IEEE/ASME Transactions on , Volume: 5 , Issue: 4 , Dec. 2000  
Pages:419 - 428

[\[Abstract\]](#) [\[PDF Full-Text \(284 KB\)\]](#) [IEEE JNL](#)

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**10 Frequency changes in aerodynamically excited resonating micromachined beams**

*Wylde, J.; Wilke, R.; Hubbard, T.;*  
Electrical and Computer Engineering, 2000 Canadian Conference on , Volume: 2 , 7-10 March 2000  
Pages:961 - 965 vol.2

[\[Abstract\]](#) [\[PDF Full-Text \(504 KB\)\]](#) [IEEE CNF](#)

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**11 Dynamic analysis of the BPX machine structure**

*Dahlgren, F.; Citrolo, J.; Knutson, D.; Kalish, M.;*  
Fusion Engineering, 1991. Proceedings., 14th IEEE/NPSS Symposium on , 30 Sept.-3 Oct. 1991  
Pages:47 - 49 vol.1

[\[Abstract\]](#) [\[PDF Full-Text \(296 KB\)\]](#) [IEEE CNF](#)

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**INSPEC - 1969 to date (INZZ)**

**Accession number & update**

4002804, C91069459; 911114.

**Title**

Modeling of the slewing control of a flexible **structure**.

**Author(s)**

[Garcia-E](#); [Inman-D-J](#).

**Author affiliation**

State Univ of New York, Buffalo, NY, USA.

**Source**

Journal-of-Guidance-Control-and-Dynamics (USA), vol.14, no.4, p.736-42, July-Aug. 1991.

**CODEN**

JGCDDT.

**ISSN**

ISSN: 0731-5090, CCCC: 0731-5090/91/ (\$2.00+.50).

**Publication year**

1991.

**Language**

EN.

**Publication type**

J Journal Paper.

**Treatment codes**

T Theoretical or Mathematical.

**Abstract**

Presents a formulation for the modeling of a single-link flexible **beam** that is undergoing slewing motion at an actively controlled pinned end, where the other end of the **beam** is free. This pinned end, or slewing axis, is of fixed orientation such that the **beam** rotates in the horizontal plane. A geared DC electric motor is connected to the **beam** at the slewing axis. A position and a velocity sensor are placed at this hinged location, and their proportional feedback provides a position control system about the slewing axis. The motor characteristics, gear ratio, and the position feedback constant determine an equivalent rotational spring constant, often called the servo **stiffness**. The paper generalizes the **structure's boundary** conditions at the slewing axis to include the effects of the servo system. (15 refs).

**Descriptors**

[aerospace-control](#); [control-system-analysis](#); [feedback](#); [position-control](#); [servomechanisms](#).

**Keywords**

DC motors; structural **boundary condition**; aerospace control; slewing control; flexible **structure**; modeling; flexible **beam**; position control; feedback; servo **stiffness**.

## WEST Search History

DATE: Thursday, March 17, 2005

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<input type="checkbox"/>	L4	L3 and optimiz\$	90
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<input type="checkbox"/>	L2	L1 and boundary condition	463
<input type="checkbox"/>	L1	structure and beam and stiffness	17069

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1. Document ID: US 20020091502 A1

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L6: Entry 1 of 6

File: PGPB

Jul 11, 2002

PGPUB-DOCUMENT-NUMBER: 20020091502

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020091502 A1

TITLE: Method of modeling of faulting and fracturing in the earth

PUBLICATION-DATE: July 11, 2002

INVENTOR- INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Malthe-Sorensen, Anders	Oslo	OK	NO	
Walmann, Thomas	Osteras		NO	
Jossang, Torstein	Oslo		NO	
Wagner, Geri	Allschwil		CH	
Feder, Jens	Oslo		NO	
Hardy, Humphrey H.	Ponca City		US	

US-CL-CURRENT: 703/2; 703/10

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">KOMC</a>	<a href="#">Drawn D</a>
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2. Document ID: US 20020029137 A1

L6: Entry 2 of 6

File: PGPB

Mar 7, 2002

PGPUB-DOCUMENT-NUMBER: 20020029137

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020029137 A1

TITLE: Method of modeling of faulting and fracturing in the earth

PUBLICATION-DATE: March 7, 2002

INVENTOR- INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Malthe-Sorensen, Anders	Oslo	OK	NO	
Walmann, Thomas	Osteras		NO	
Jossang, Torstein	Oslo		NO	
Feder, Jens	Oslo		NO	

Hardy, Humphrey H.

Ponca City

US

US-CL-CURRENT: 703/10

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawn D
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3. Document ID: US 20020010570 A1

L6: Entry 3 of 6

File: PGPB

Jan 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020010570

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020010570 A1

TITLE: Method of modeling of faulting and fracturing in the earth

PUBLICATION-DATE: January 24, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Malthe-Sorensen, Anders	Oslo	OK	NO	
Walmann, Thomas	Osteras		NO	
Jossang, Torstein	Oslo		NO	
Wagner, Geri	Allschwil		CH	
Feder, Jens	Oslo		NO	
Hardy, Humphrey H.	Ponca City		US	

US-CL-CURRENT: 703/10

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawn D
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4. Document ID: US 6370491 B1

L6: Entry 4 of 6

File: USPT

Apr 9, 2002

US-PAT-NO: 6370491

DOCUMENT-IDENTIFIER: US 6370491 B1

**\*\* See image for Certificate of Correction \*\***TITLE: Method of modeling of faulting and fracturing in the earth

DATE-ISSUED: April 9, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE ZIP CODE	COUNTRY
Malthe-Sorensen; Anders	Oslo		NO
Walmann; Thomas	.O slashed. ster. ang. s		NO
Jossang; Torstein	Oslo		NO
Feder; Jens	Oslo		NO
Hardy; Humphrey H.	Ponca City	OK	

US-CL-CURRENT: 703/2; 702/14, 702/6, 703/1, 703/10

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOMC	Drawn D
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 5. Document ID: US 5891131 A

L6: Entry 5 of 6

File: USPT

Apr 6, 1999

US-PAT-NO: 5891131

DOCUMENT-IDENTIFIER: US 5891131 A

TITLE: Method and apparatus for automated simulation and design of corneal refractive procedures

DATE-ISSUED: April 6, 1999

## INVENTOR- INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rajan; Subramaniam D.	Chandler	AZ		
Mobasher; Barzin	Scottsdale	AZ		
Hall; Gary W.	Paradise Valley	AZ		

US-CL-CURRENT: 606/5; 351/212, 606/6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOMC	Drawn D
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 6. Document ID: US 5615116 A

L6: Entry 6 of 6

File: USPT

Mar 25, 1997

US-PAT-NO: 5615116

DOCUMENT-IDENTIFIER: US 5615116 A

TITLE: Apparatus and method for autonomous vehicle navigation using path data

DATE-ISSUED: March 25, 1997

## INVENTOR- INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gudat; Adam J.	Edelstein	IL		
Rao; Prithvi N.	Pittsburgh	PA		
Shaffer; Gary K.	Butler	PA		
Shi; WenFan	Pittsburgh	PA		
Shin; Dong H.	Pittsburgh	PA		
Whittaker; William L.	Pittsburgh	PA		
Kleimenhagen; Karl W.	Peoria	IL		
West; Jay H.	Pittsburgh	PA		
Clow; Richard G.	Phoenix	AZ		
Singh; Sanjiv J.	Pittsburgh	PA		
Christensen; Dana A.	Peoria	IL		
Kemner; Carl A.	Peoria Heights	IL		
Bradbury; Walter J.	Peoria	IL		
Koehrsen; Craig L.	Peoria	IL		

Kyrtos; Christos T.	Peoria	IL
Lay; Norman K.	Peoria	IL
Peterson; Joel L.	Peoria	IL
Schmidt; Larry E.	Peoria	IL
Stafford; Darrell E.	Dunlap	IL
Weinbeck; Louis J.	Peoria	IL
Devier; Lonnie J.	Pittsburgh	PA

US-CL-CURRENT: 701/23; 180/167, 318/587, 701/202, 701/213, 701/301

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